

II. *A Discourse of COFFEE, read at a Meeting of the ROYAL SOCIETY, by Mr. John Houghton, F. R. S.*

Several have written of this Plant, and particularly the Learned Mr. Ray, in his large History of Plants, pag. 1691, 2. 3. But for its Description, I shall only refer you to what was Published by Dr. Sloane, in the 17th. Vol. of these Transactions, No. 208. pag. 63. where is the Figure, Description, &c.

At the beginning of the Transaction, is a Cut of the Branch, with its Leaves and Berries, only the Leaves are not set opposite one to another, as he tells me they ought to have been.

I cannot learn the use of any part of this Plant, except the Berries, of which boil'd in Water, a Drink is made, and drunk much among the *Arabians* and *Turks*, and also now in *Europe*.

How the *Arabians* fell first into the use of Coffee is hard to tell, perhaps 'twas their *Succedaneum* for Wine, which *Mahomet* had prohibited; nor how they come to roast it before boiling, which it's probable is owing to Chance, or perhaps a debauch'd Palate, as some with us love the burnt part of broil'd Meat, and from some great one, it might grow into a Fashion, as the use of Tobacco and Coffee with us, although had they been imposed by a Law of the State, or Physician, it would have been thought very severe. However it got head,

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for by its actual heat it refresh'd the weary, and did several other Services, as Wine that acted by a potential heat.

The general use of it quickly made it a Trade in great Towns, and the frequent use of it made it be desired stronger and stronger, till the excessive Drinkers would take whole Spoonfuls of the Oyl that swims on the top, as our great Drinkers arrive from Wine to Brandy, and from thence to more burning Spirits.

Into these Publick-houses they would come by Hundreds, and among them Strangers would venture, where they learn'd the Custom, and carried it to their own Countries; for one Mr. *Rastall* an *English* Merchant, whom I knew, went to *Leghorn* in 1651, and there found a Coffee-house. To the same House of Merchandise where this *Rastall* was, came Mr. *Daniel Edwards* a Merchant from *Smyrna* (where Coffee had been used immemorially) who brought with him, Anno 1652, a *Greek* Servant, named *Pasqua*, who made his Coffee, which he drank two or three Dishes at a time, twice or thrice a Day.

The same Year *Edwards* came over Land into *England*, and Married the Daughter of one Alderman *Hodges* a Merchant, who lived I think in *Walbrook*. This *Hodges* used with great delight to drink Coffee with *Edwards*, so it is likely, that this *Edwards* was the first that brought Coffee into *England*, although I am inform'd that Dr. *Harvey* the famous Inventer of the Circulation of the Blood, did frequently use it.

After this it grew more in use in several private Houses, which encouraged Mr. *Edwards* to set up *Pasqua* for a Coffee-man, who got a Shed in the Church-yard of *St. Michael Cornhil*, where he had great Custom, inso-much that the Ale-house-keepers fearing it should spoil their Trade, Petitioned the Lord Mayor against him, alledging his not being a Freeman. Upon this Alderman *Hodges* joyned as a Partner with *Pasqua* one *Bowman* his Coach-

Coachman, who was made Free, upon which they lived unmolested in the same place, where Mr. *Rastall* found them in the Year 1654, but sometime after this *Pasqua* for some Misdemeanour run away, and *Bowman* had the whole Trade, and managed it so well, that by his Profit, and the Generosity of his Customers, who contributed Sixpence a piece, to the number of almost a Thousand; he turned his Shead into a House, and when he died left his Wife, who had been Alderman *Hodges's* Cook-maid, pretty Rich, but she died Poor not many Years since.

John Painter was *Bowman's* first Apprentice, and out of his Time in 1664, *Bowman* died 1663, and after one Year his Wife let the House to one *Batler*, whose Daughter Married *Humphrey Hodskins Bowman's* second Apprentice, who was with him before *Monk's March*, Anno 1659. This *Humphrey* lived long in *St. Peter's-alley* in *Cornhil*, and died not many Years since, and left there his Widow, *Batler's* Daughter, from whom I had this Account.

How long this has been in use in the World, is hard to say, but *Tavernier's Travels*, the *English* Edition, says it had been in use but Twenty Years, although the Author said Six-score-years.

I am inform'd that *Dr. Beveridge* has an *Arabick* Book, that says a Hermit drank it, and called it *Coffee* which signifies *Drink*, but the name is *Bun*.

This is what I can learn of the Original of Coffee, and Coffee-houses, but as for its Virtues, I think no body has Published any thing considerable about it. I shall give my Thoughts, which perhaps may provoke some that understands better to shew the Weakness of them, and in their room set forth better.

The best Coffee-berry is what is large and plump, with a greenish cast, and having on the thin parts a Transpa-

gency; the other has a yellowish cast, and is more opaque, but when they are roasted, 'tis hard to distinguish.

I put some Berries into a Glass of Water about a Week since, to see if they will sprout, but as yet there is no appearance, altho' they are tollerably swell'd, and look white and bright.

I have made a Decoction of them, which has made them shoot.

The common way of preparing the Berry for the Drink Coffee, is roasting it in a Tin Cylindrical Box full of holes, through the middle of which runs a Spit, under this is a semicircular Hearth, wherein is made a large Charcoal-fire: By the help of a Jack, the Spit turns swift, and so it Roasts, being now and then taken up to be shaken. When the Oyl arises, and it's grown of a dark brown colour, it's emptied into two Receivers made with large Hoops, whose bottoms are Iron-plates, these shut into, and there the Coffee is well shaken, and left till almost cold, and if it looks bright, Oily, and shining, 'tis a sign 'tis well done.

Of this, when fresh, if an Ounce be ground, and boil'd in something more than a quart of Water, till it be fully impregnated with the fine Particles of the Coffee, and the rest is grown so ponderous, as it will subside and leave the Liquor clear, and of a redish Colour, it will make about a Quart of very good Coffee.

The best way of keeping the Berries when roasted, is in some warm place, where it may not be suffered to imbibe any Moisture, which will pall it, and take off it's briskness of Taste: It's best to grind it as used, except it be ram'd into a Tin-pot, well covered and kept dry, and then I believe it will keep good a Month.

There will swim upon the Coffee an Oyl, which the *Turkish* great Coffee-drinkers will take in great plenty if they can get it. When the Coffee has stood
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some time to cool, the gross parts will subside, the briskness will be gone, and 'twill grow flat and almost clear again.

That I might farther understand Coffee, and how it agrees with Horse-beans and Wheat, which sometimes I have heard has been used instead of it : I sent to the Chymists 1 Pound of clean Coffee, 1 Pound of Husk'd Horse-beans, and 1 Pound of pick'd Wheat; and I received back

Coffee		Horse-beans	
Spirit ret	℥vi ℥vi	℥vi ℥i gr. xii	
Oyl	℥ii ℥iii ℥ii	℥i ℥iii gr. x	
Cap. mort.	℥v ℥iii	℥v ℥iii	
Wheat			
Spirit	℥viii ℥i ℥i		
Oyl	℥i gr. vi		
Cap. mort.	℥iv ℥vi		

By this account it appears that Coffee yields by distillation, in a Retort, almost double as much Oyl as Beans and almost treble as much as Wheat; the other proportions may easily be seen above.

The Oyls are very thick, but they and the Spirits have all of them ill flavours as is usual from burnt Materials.

By Spirit is meant the Flegm.

The *Capita Mortua* have no smell. They have been calcin'd over and over with all the Art my Chymist has, but he cannot reduce them to a Calx or Ashes, and concludes there is no Salt to be gotten from them. But that from your more knowing Considerations

tions they may be better understood, I have brought all the particulars hither.

From what's afore said I note, that from the common drink called *Coffee*, there is little good can come from any part, but its Oyl, because its other thin parts are evaporated, and its thick subsides ; but its Oyl I suppose to be nutritive *quasi* Oyl, and warm *quasi* a Chymical Oyl, for all the warm parts are brought hither as to a point, and thereby it may enliven and invigorate some heavy parts in the fermentative-juices, and nourish weak Parts within as other Chymical Oyls do the parts external when rub'd, but being diluted as it usually is, I question whether it does any more good than hot Tea, hot Broth, or any thing else that is actually hot ; for I believe that actual and potential Heats are much of the same operation, for I have often found, that in a fainting, or weariness, a hot supping has refresh'd me as much as a glass of Wine.

It has been generally thought to be an Antihypnotick or Hinderer of Sleep, which I dare not gainsay ; Dr. *willis* and other learned Men having declared it so, but now it is come into frequent use, the contrary is often observ'd, although perhaps Custom as it does with *Opium* alters its natural Qualities. Could I meet with a satisfactory Theory of Sleep, perhaps at this I might give some better guesses.

As to the Political uses of Coffee, I am told, that our three Kingdoms spend about one hundred Tun a Year, whereof *England* spends about seventy Tun, which at fourteen Pounds a Tun (a middle price now a Days) will amount to 20586 Pound sterling, and if it were to be all sold in Coffee-houses, it would reach treble 61740 Pounds, which at ten Pounds a Head will find employments for 6174 Persons, although I be-

believe all the People of *England* one with another do not spend five Pounds each.

Coffee when roasted loses about a fourth part ; then there is spent about fifty two Tun and a half of roasted Coffee, which makes 117600 Pound or 1881600 Ounces or 15252800 Drachms, which if there be Eight Millions of People, it is not two Drachms or half a pint of Coffee a piece for a Year. How little is this Trade when thus considered, and how greatly may it be improved, although we spend as many Tuns in half a Year, as it has been Years with us. Besides what we use, we send a great deal abroad, and I doubt not but in short time the gain of what we send abroad will pay the first cost of all we shall spend at home, and I believe one of the best ways to make advantage of Foreign Trade is to use such Wares much at home, and that will teach all we trade with to follow our Example ; it does thus in Silks, Calicoes, Pepper, Tobacco, and several other things.

Furthermore Coffee has greatly increased the Trade of Tobacco and Pipes, Earthen dishes, Tin wares, News-Papers, Coals, Candles, Sugar, Tea, Chocolate and what not ? Coffee-house makes all sorts of People sociable, they improve Arts, and Merchandize, and all other Knowledge ; and a worthy member of this Society (now departed) has thought that Coffee-houses have improved useful knowledge very much.

June 14th 1699.